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VISION REHABILITATION CLINIC

Rhode Island Association for the Blind

Project RD 398

FINAL REPORT TO

Department of Health, Education and Welfare

Vocational Rehabilitation Administration

Washington, D.C.

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FINAL REPORT

TO

Department of Health, Education and Welfare
Vocational Rehabilitation Administration
Washington 25, D. C.

PROJECT NO. RD 398
February 1, 1959 - November 30, 1963

VISION REHABILITATION CLINIC
Rhode Island Association for the Blind
39-49 Arcade Building, Providence, R.I.

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Vision Rehabilitation Clinic

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HISTORY:

Realizing the benefits accruing to persons with subnormal vision in other areas of the country from the use of special low vision devices, the Rhode Island Association for the Blind decided these appliances should be more readily available to Rhode Island blind persons and those with subnormal vision. On January 30, 1959 the Association received approval of its application for a U. S. Department of Health, Education and Welfare grant for use to help support a selected demonstration project entitled "Vision Rehabilitation Clinic". Each year since that time the grant has been renewed annually and with the two extensions approved, the closing date for the final grant period was November 30, 1963. The importance of this grant in providing a needed service to Rhode Island persons cannot be overestimated.

PURPOSE:

The Vision Rehabilitation Clinic was established for the purpose of prescribing and fitting legally blind and partially sighted persons with the most advanced forms of subnormal vision devices and other aids available in order to increase their opportunity for employment and/or to rehabilitate them to more adequate daily living.

It was realized not all persons with residual vision would be able to be successfully fitted to the devices. Because of complicating factors it was estimated approximately 68% of clients could possibly be provided optical aids which would give them increased visual acuity.

PLAN:

It was the plan that each client's problem should be treated on an individual basis, taking into consideration many factors in addition to degree of visual impairment. Age at onset of blindness, education, and motivation to use of the device would be among pertinent considerations. It was further determined a team-work approach to the problem would be employed, using the services of an ophthalmologist, an optometrist and a social worker in servicing each case.

PROCEDURE:

Social Service: Application and referrals for service in the Vision Rehabilitation Clinic are accepted from all sources. Upon receipt of a request for service a social worker is assigned to the case. The client is interviewed to discuss the situation in which he finds himself, his desires concerning this service and the specific use he hopes to make of the device. Limitations and difficulties in adjustment are outlined to prevent over-optimism, frustration and disappointment should subsequent fitting prove difficult, unfeasible or impossible.

Ophthalmological: A complete ophthalmological examination is the first prerequisite to the subnormal vision examination in order to determine:

1. the client's visual status
2. that the possibility of improvement through medical or surgical care is not overlooked
3. activities to be avoided, and
4. measures to be taken to avoid further visual loss.

The social worker, with the consent of the client, secures the ophthalmological report from the ophthalmologist or clinic the client has visited providing such an examination has been made within a year. If not, a new examination is arranged through these sources. If a client has no source through which the ophthalmological report is available, the examination is made by the Vision Rehabilitation Clinic's consulting ophthalmological staff.

Optometric Service: After the Social Service staff has obtained ophthalmological clearance, the client is referred to the staff optometrist who then examines the subnormal vision client to determine the prescription or low vision aid and the conditions that will enable the client to make maximum use of his remaining vision. This examination is precise and time-consuming and makes use of the most advanced forms of subnormal vision devices. Special charts are used in addition to the more familiar ones with attention being given to such factors as most beneficial lighting conditions and to auxiliary aids such as typing stand, etc.

Follow-up: After satisfactory fitting of the lenses, training toward ultimate successful use of these aids is given careful attention by the social worker and optometrist. The optometrist rechecks the client's adaptation and progress at intervals of 1 month, 3 months, 6 months and 1 year after dispensing. The social worker visits the client in his home to check on progress midway between each of these appointments. Where the client's progress is not satisfactory and assistance is beyond the scope of the social worker, the client is immediately given an appointment with the optometrist for further evaluation and assistance. In those instances where medical attention is indicated the client is reappointed with the ophthalmologist.

Upon dispensing the visual aid the source of referral and the ophthalmologist are supplied a report on the service rendered and the aid prescribed together with a report on the visual acuity of the client with the aid.

EXPERIENCE:

The Clinic operates two one-half days per week with the social worker devoting two full days per week to the project. The total grant period included 4 years, 9 months. Clients were first seen 6 months after the starting date because of delays in securing equipment. A total of 231 clients were seen by the optometrist while the social worker serviced an additional 63 clients.

In this section, statistics will be discussed with evaluation of statistics being left for discussion in the section of the report entitled "Observations and Conclusions". It should be noted these statistics are based on person to person contacts with the client with no dependence on questionnaires, etc. to reveal data considered pertinent.

Chart I: Of the 231 clients visiting the clinic 126 (54.4%) were male and 105 (45.6%) female. Hence the group was fairly equally distributed between men and women.

Chart II: 16.9% or 39 of the 231 clients were age 19 or younger; 12.1% were ages 20-39; 22.1% were ages 40-59, while 37.2% were ages 60-79, with 11.7% of clients falling into age groups 80-90 and older. Upon further study it becomes apparent 71% of the group were age 40 or over. This distribution seems to be a valid sampling of the blind population since blindness is a problem most prevalent among the ageing.

Chart III: Chart III indicates the years of formal education completed by clients of the Clinic. No particular pattern of experience seems to be apparent. For 16 clients no history was available; 85 had 1-8 years of elementary education; 82, 1-4 years of high school; 35 received 1-4 years of college training, while 7 studied 1-3 years beyond the college level. Only 6 persons had had no formal education.

Chart IV: An analysis of the age at onset of blindness reveals that in the case of 61 clients (26.4% of the total) the condition was congenital or occurred before age 10. The ages during which the greatest number experienced the onset of blindness were from 50-79, accounting for 43.6% (101) of the clients seen. 15.1% of onset occurred between ages 10-39 while 5.6% occurred at age 80 plus. For 9 clients no history was available. It again appears there may be a relationship between ageing and the onset of blindness.

Chart V: Of the 231 clients seen 83.5% (194) had been blind from 2 to more than 20 years with 19.5% having been blind from 2 to less than 4 years, another 19.5% for more than 20 years, 20.4% from 4 to less than 8 years, while 24.1% had been blind from 8 to less than 20 years.

Chart VI: For 91 (39.4%) of the 231 cases no history for rate of onset was available. In 24.1% (56) cases onset was sudden. The 2 to less than 5 year period accounted for 13.0% (30) of the cases with no other time span accounting for more than 7.8% (18) of the cases. The large number of cases for which there was no history makes the statistics less valid and representative than they would have been had this information been available for all clients.

Chart VII: The primary cause of visual loss has been recorded for the best eye whether simply tested or tested and fitted so that it will be evident if there is a correlation between the ability to fit low vision aids to certain categories of damages and the correlation of successful adaptation to a visual aid and specific diagnoses.

Of the 231 clients examined 159 (68.8%) had diseases of the choroid and retina, 11.3% (26) of the nerve, 6.5% (15) of the cornea, another 6.5% of the lens with 9 of the remaining 6.9% (16) diagnosed as nystagmus, 2 as congenital malformation, 2 as albinism, and one each as aniridia, suspected brain damage and brain tumor.

Of the 231, 81 experienced degeneration of the retina, 19 diabetic retinitis, 16 optic atrophy, 14 congenital myopic degeneration, 12 retinitis pigmentosa, 12 cataract, and 10 glaucoma. The remaining 50 were spread among an additional 18 categories.

Chart VIII: In 51 cases (22.1%) etiology was unknown and for an additional 20.7% of cases (48) no history was available. Of the 231 cases, etiology for 33 (14.2%) was congenital, for 26 (11.2%) was diabetes, for 17 (7.3%) was arterio-sclerosis, for 14 (6.0%) was hereditary, for 9 (3.9%) was senility, for 9 excessive oxygen in prematurity, for 6 (2.6%) myopia with the remaining 18 being distributed among 15 etiologies. It becomes apparent 105 cases (45.4%) occurred at birth or had some tendency to be familial.

Chart IXa: Visual acuities taken at the time of the initial visit to Clinic were used in this and Chart IXb to assure the same testing procedure was used for all 231 clients, using special subnormal vision charts under the same standards of illumination. 25 clients (10.8%) were tested at 5 feet - these were the only figures transformed to 10 feet for uniformity.

The subnormal vision charts used in the clinic have finer gradations than that which is commonly used in the optometric office routine. The factor used to determine the next size letter that can be distinguished by the eye is 1.26. Therefore, if the 20 ft. letter is multiplied by 1.26 you get 25.2 and when this is multiplied by 1.26 you obtain 31.7. Most charts jump from the 100 ft. letter to the 200 ft. letter completely disregarding the above factor, which is not of great significance in normal refraction, however, an individual with 10/52 is in a considerably better position than one with 10/97, yet on the standard charts each would test out as 20/200. It was for this reason that the reported acuities were disregarded and the uniform standard acuities as taken in the clinic over the 57 month period by the same examiner were utilized throughout the entire analysis.

Only 2 clients (.8%) had 10/20 or better acuity with best correction at distance before being examined for subnormal vision aids. An additional 10 clients (4.3%) had better than 10/32, which is considered above subnormal for central acuity. A total of 52 clients (22.3%) started with central acuity of better than 10/52. 46 clients (20.0%) ranged in acuity from 10/68 to 10/97. The total number of clients whose central acuity was considered as better than 10/97 was 98 (42.4%). An additional 56 clients (24.2%) were measured between 10/109 and 10/200. 39 clients (16.9%) were tested to range between 10/200 and 10/300. A total of 193 clients (83.5%) ranged between 10/44 and 10/300. 22 additional clients (9.5%) had some measurable acuity from 10/400 to 10/800. 16 clients (6.9%) could not read any Snellen Letters or numbers presented to them with 15 of these having only light perception.

Chart IXb: Of the 231 clients examined for near acuity 19 clients (8.2%) were able to achieve the J₁ print. 10 clients (4.6%) could read the J₂ print and an additional 15 clients (6.5%) were able to read J₃ print. A total of 34 clients (19.3%) were capable of reading the newspaper with varying degrees of difficulty. 45 clients (19.4%) ranged between J₄ and J₆ making a total of 79 clients (34.3%) who could achieve better than J₆ print. 89 clients (38.5%)

ranged in near acuity from J₇ to J₂₀. 50 clients (21.6%) had less than J₂₀. 3 clients (1.4%) had no measureable acuity.

The above acuities were taken at no fixed distance, meaning a 20.00 diopter myope read at 5 cm or approximately 2 inches, without his glasses. The client may not have preferred to read this way and desired assistance at near. The statistics are, therefore, favored to a better degree and makes the significance of Chart XVIb even greater.

Chart X: An analysis of the number of years since clients had read the newspaper showed that 18 had never read the newspaper and for 20 the question was not applicable. Both categories can be accounted for in part by students too young to read a newspaper. An additional 37 (16%) can read the newspaper presently with varying degrees of difficulty and/or through the use of devices such as hand magnifiers. No history was available for 11 clients (4.7%). 45 clients (19.4%) had been able to read a newspaper within 1 but less than 2 years, 37 (16.6%) within 2 but less than 4 years, 18 (7.7%) within 4 but less than 6 years, 11 (4.7%) had not read a newspaper for over 20 years.

A comparison of this data with that included in Chart XVIb reveals interesting data which will be discussed in the conclusions to be drawn later.

Charts XI a & b: Of the 231 clients asked, "What would you most like to see if you can be helped?" only 12 indicated they had no special desire. 124 (53.7%) indicated they would like to be able to read, 20 they would like to see at distance to do such things as play baseball, see people, see across the room, read numbers, fish, see signs and distinguish forms, 18 (7.8%) indicated they would like increased vision to help them in their work, while 10 (4.3%) wanted to be assisted as homemakers to do such things as shop, cook, read labels or help their children. 13 wanted increased acuity to aid in school work. Others indicated they wanted visual improvement to see at near (to read a thermometer, do handicrafts, see small objects, and use hands). Also desired was to dial the phone, sew, read music, type, see TV or movies, travel freely, etc. Some clients indicated an unrealistic approach or understanding of the use of low vision devices by indicating their desire to do such things as drive a car and to see everything.

78 clients indicated they had no secondary desire with 43 (18.6%) desiring to read, 22 to see at distance for a variety of tasks, 20 to aid in travel, 16 to sew and 11 to aid in jobs at which they were employed. The remaining number spanned the desires listed as primary with the tendency of some to be unrealistic also included here.

Chart XIII: It is realized motivation is an important factor in adjustment to low vision aids. It was felt there might be a correlation between the number of avocations in which the client was interested and his motivation to use the device (and hence assure the success of the fitting). 19.5% (45) had no avocation, while 107 (46.3%) had many and 60 (26%) had 1. After reviewing statistics and the degree of adjustment it cannot be said there is a relationship based on avocation in and of itself.

Chart XIV: Of the 263 units prescribed for 187 clients, 82 units (31.1%) were telescopic spectacles while 101 units (38.4%) were microscopic spectacles. 60 units (22.7%) were ophthalmic lenses in either single vision or bifocal form, many of a high power. Only 2 units (.9%) were given in combination of telescopic and microscopic spectacles. Of the remaining 18 units (6.8%) 16 were either hand held or clip-on types with one of the eighteen being an aperture device and the other being contact lenses. Except for an occasional client who needed too strong an addition (and therefore used a microscopic spectacle for near), all but one client were given reading caps with the telescopic spectacles. Many clients were given two reading caps to give the unit more versatility.

Chart XIV: Of the 231 clients seen in the Clinic visual aids were prescribed for 187 (77.6%). 14 cases were still in process of optometric screening at time of closing of the grant period and no aids were prescribed for 30 (13.0%) clients. Of the 187 clients prescribed, 144 are known to be wearing the aid and 10 have died since dispensing. In 8 cases there has been insufficient time since dispensing to evaluate whether they are wearing the aid, 6 are awaiting devices which are on order and 2 rejected the aid after dispensing.

Chart XV: A study of the visual aids prescribed to various diagnoses reveals that of the 4 amblyopic clients, units were prescribed to 3 clients; no aid was given the fourth. Of the 81 clients who had degeneration of the choroid and/or retina, no aid was given to 9 clients and 74 subnormal vision aids were prescribed for 67 clients while 5 clients are still in progress. No aid was given to 5 clients with diabetic retinitis while 21 units were given to 12 other diabetic clients and 2 others are still in process. 10 units were prescribed for 8 of the retro-lental fibroplasia clients and one client was not given any device. 15 units were given to 8 clients with chorioiditis and chorioretinitis, while one client was not given an aid. No aid was given in 3 cases of congenital myopic degeneration while 13 units were prescribed for the remaining 11 clients. Only one client of retinitis pigmentosa was too advanced to assist with any aid, however, 11 units were given to 9 clients with this hereditary condition.

While 3 clients were not given any aid who had optic atrophy, 12 clients were given 21 units. 9 units were prescribed for 7 clients who had glaucoma, while no aid was given in 3 cases. Only 2 clients were not given an aid with corneal scarring, dystrophy, leucoma or keratitis, while 10 units were prescribed in the remaining 8 cases. 2 clients with cataract and aphakia were not given an aid but 19 units were given to the remaining 13 clients. 31 units were prescribed for the following conditions: hemorrhage with macular involvement, uveitis, congenital macular dysplasia, retinitis proliferans, pthesis bulbi, congenital micro-ophthalmus with complications, nystagmus, aniridia, albinism and one pathology unknown. Every one of these cases could be given some device for assistance.

Chart XVIa: All clients were tested with the maximum practical limit of magnification at distance, the most widely accepted 2.2x magnification. Only 2 clients (.8%) had 10/20 or better acuity with best correction at distance before being examined for subnormal vision devices. This contrasts sharply with 42 clients (18.1%) who could be given 10/20 or better. A total of 52 clients (22.3%) started with central acuity of better than 10/52 and often subnormal vision aids were tried. 156 (67.5%) could be brought down to this acuity or better. An additional 28 clients (12.1%) could be corrected to 10/97 or better. 35 clients (15.1%) had some measureable correction with only 3 of these that could be corrected with less than 10/300. 12 clients (5.1%) could not be brought to any measurable acuity.

Chart XVIb: The most surprising and significant chart is the near acuity after examination for a subnormal vision aid. Only 19 cases were capable of achieving J_1 before examining yet 180 (77.9%) were able to achieve J_1 with some subnormal vision device. 208 clients (90%) could achieve J_3 or better which meant they could read newspaper print. An additional 6 clients were able to achieve this J_3 at a later date. A total of 221 clients (95.7%) were capable of J_6 print or better. There is a complete gap between J_6 and J_{16} . Only 10 clients could not be brought to J_6 print and these clients could not be brought down to anything better than J_{16} . These clients were severely handicapped by complete scarring or loss of peripheral retina such as retinitis pigmentosa and mobility was extraordinarily difficult if not impossible without tactile sense. Only one client in this group was given some limited assistance.

Chart XVII: The significance of Chart XVII is better understood when the following is taken into consideration: First, all acuities were taken by the same examiner under exactly the same standards of visual chart testing, distances and illumination. Second, each client was given sufficient time to respond. Third, initial acuities were always recorded to the best line read minus inability to read on that same line. Corrections were recorded only as the complete line. Fourth, no acuity was considered final until the patient had had at least three visits. It was found that in most cases the acuity that could be achieved on the second and third visits oftentimes was at least one to two lines better.

The 17 clients whose central acuity improved after complete adjustment becomes more significant when the above is considered. It is also significant that only 4 clients out of 187 dispensed had any deterioration of their vision. Naturally some of these cases are of recent dispensing but at least 130 of them are clients who were seen from one to three years ago. The important statistic is the absence of any mass deterioration of vision.

Chart XVIII: In spite of the high degree of increase in acuity at the near point and in spite of the fact that no limit on magnification is placed at near, thus assuring the best possible acuity, 7 clients' near central acuity improved. This, like the distance improvement, was only recorded after the patient adapted to the unit. At near only 3 client's vision deteriorated, two only a small amount and the third drastically. Again the most significant statistic is the absence of mass deterioration of near acuity.

Chart XIX: Of the 187 clients prescribed 131 were given 1 vision aid, 43 were given 2 and 13 were given 3 or more aids for a total of 263 subnormal vision aids dispensed. This does not include changes in prescription made after examination during routine periodic re-examinations.

Chart XX a, b, c: "Progress" and "success" are both terms which should be defined so frame of reference will be accurate. A fitting of a visual aid is considered successful if a desire of the client is fulfilled with the optical aid. i.e. see TV, read, etc. Progress is defined as follows:

Excellent - adjusted with no problems
Good - uses and likes aid for purpose
prescribed, some instruction needed
after dispensing
Fair - uses aid spasmodically for purposes
prescribed, needs continuing social service
and clinic follow-up
Poor - objects to aid - needs motivation and
instruction; adjustment problematical
IT - insufficient time has elapsed since aid
was dispensed to evaluate progress at this
time

It is felt at least a year should elapse before saying with finality a client has or has not made progress of a given degree. Of the 101 clients adjudged as having made excellent progress, 83 had had their aids more than a year; of the 12 adjudged good, 11 had had the aid more than a year. Of the 16 fair, 9 had the aid more than a year, while of the 7 considered poor, 3 had had the aid more than a year.

10 clients have died since being prescribed. Progress for this group was not included in the above figures, however at the time of the last visit to the clinic adjustment of these clients was considered as follows: 5 excellent, 3 good, 1 poor, 1 insufficient time.

A progress report was not applicable to 29 clinic clients. 9 had vision that was too poor to be improved with a visual aid, 8 could be helped, but either would not accept limited vision, would not adapt to an optical aid, or did not desire to continue. It was not possible at the time to evaluate 2 clients. For 4 no further assistance was possible at the time. For 3 vision had deteriorated, while 2 persons moved out of state and 1 had been referred elsewhere because his vision was above subnormal.

Charts XXI a, b, XXII: A total of 801 visits were made by 231 clients to the clinic prior to dispensing or dismissal, with 639 visits being made by 187 clients to the clinic after dispensing. An average of 3.4 visits were made per client. 78 (34.0%) clients made 3 visits before dispensing, while 81 (35.0%) made 4 visits. One client each made 7, 8 and 9 visits prior to dispensing.

Of the 187 clients prescribed, 34 have not returned to clinic, since dispensing. Insufficient time has elapsed for 12 of these to have returned. Except in cases where clients have moved out of state or died social service has contacted the remainder of the 22 clients. The average number of visits after dispensing 153 clients was 5.8 with the median number being approximately 3. 9 clients made 10 or more visits while 29 made 1, 30 made 2, 19 made 3, 22 made 4 and 18 made 5.

A total of 1,430 visits were made to clinic by 231 clients between August 1, 1959 and November 30, 1963. Clinic operates two one-half days per week.

These clinic visits represented a total of 1,075 hours spent in clinic by 231 clients. The average time was $5\frac{1}{2}$ hours with the median time being 4 hours including both visits before and after dispensing.

Chart XXIII: Of the 231 clients 91 (39.4%) were referred by 17 ophthalmologists, 59 (25.5%) by the R. I. Division of Services for the Blind, 28 (12.1%) by self-referral, 21 (9.1%) by Association staff from its case load, 13 by hospital clinics, 11 by 7 optometrists with the remaining 8 having been referred by families, a school department and the Department of Education Division of Vocational Rehabilitation and others.

Chart XXIV: 21 of the 231 clients examined were unemployed, 58 retired, 2 semi-retired, 13 "at home", 43 were home-makers and 42 were students. The remaining 52 clients were employed in a variety of 34 positions. 8 of these ran their own businesses, 5 were salespeople and 3 were vending stand operators. Beyond this there was no other occupation which predominated.

Chart XXV: It is felt that whenever possible a client should pay for his own device (at ophthalmic laboratory cost), but that no client should be denied an aid because of inability to pay. When a client is unable to pay, other resources are explored in the following order: family, Division of Services to the Blind, or Department of Education, Division of Vocational Rehabilitation, Public Assistance, Lions Clubs or other community organizations.

Devices of 134 (58.0%) clients were paid for by themselves or their families, 20 by Division of Services for the Blind, 17 by Public Assistance, 10 by Lions Clubs and one by the Department of Education, Division of Vocational Rehabilitation. Other sources paid for 3 while it is yet to be determined who will pay for the device in 12 current cases.

Chart XXVI: 139 (59.0%) of the 231 clients seen in the Vision Rehabilitation Clinic were known to the Division of Services to the Blind while 83 (35.9%) were not known to the Division with the status of 12 current cases not known. In those cases where clients were not known to the Division of Services they were informed about programs of the Division and those so requesting were referred either for registry only or for a specific service.

Chart XXVII: An analysis of the number of new clients seen in clinic reveals that for the 5 month period of the first year of operation, 26 clients (11.3%) were processed through the clinic or slightly better than one new client each week. During the first month of operation, 12 clients were processed, then as the clients returned for additional checks and dispensings, the cases normalized to one per week. 58 new clients (25.1%) were processed during the first full year of operation. 54 new clients (23.3%) were processed during the second full year of operation. There was a slight drop to 43 new clients (18.6%) who were processed during the third full calendar year. For a short period no new cases were processed due to loss of social worker. For the 11 month period that terminated the study, 50 new clients (21.7%) were processed. During the entire period the clinic operated two one-half days per week.

Chart XXVIII: Of the original 231 clients examined in the clinic, 119 (51.5%) have appointments to return for further evaluation and progress checks. 22 clients (9.6%) are presently in progress. 18 clients (7.8%) have not officially been closed as it is felt additional service can be provided to them. These clients include 3 cases who are ill, 3 who cannot be located presently and 7 who have failed to keep their last appointment and who are being reappointed. 16 clients (6.9%) are deceased and therefore closed and an additional 56 clients (24.2%) have been closed. This last category includes clients who could not be given assistance, clients who could be helped but would not accept or adapt and clients who did not desire to continue. Also included are clients who were helped but for whom no further assistance is possible and clients whose vision deteriorated beyond help and finally clients who moved out of state or could not be located.

Chart XXIX: During the grant period 4 persons served as social worker at various times. The first worker processed 42 new referrals, the second 127, the third 22 and the fourth 23. The first worker worked with an additional 15 clients never seen by the optometrist, the second 21, the third 4 and the fourth 23. Of this latter number several are scheduled to be seen in the clinic. A total of 294 clients were seen by the social work staff during the grant period.

Chart XXX: It is the plan that following dispensing the social worker will visit the client in his home to determine degree of adjustment to the aid and to give assistance where possible with the problems that may have developed. These visits occur midway between the 1 month, 3 month, 6 month and one year recheck by the optometrist, making a total of 5 visits including the intake visit.

Degree of casework service is defined as follows:

Routine: 5 home visits as outlined above.

Intensive: visits beyond the routine 5 home visits for the purpose of assisting the client in his adaptation to use of the visual aid.

Limited:- number of home visits made are fewer than the number prescribed as "routine" procedure. Extenuating circumstances such as full-time employment or exceptionally good adjustment to the device may have precluded "routine" social service.

Of the 101 clients whose progress was considered excellent, 14 were given intensive, 52 routine and 35 limited service. Of those 12 considered good, 2 were given intense service, while 5 were given routine and 5 limited service. Of the 7 poor, none were given intense service, 2 were given routine and 3 limited service. The 7 reported adjusting poorly were not given intense social service because either the patient became ill, deceased or the patient's condition worsened.

COMMUNITY RELATIONS:

It was the conviction that the success of the Vision Rehabilitation Clinic depended as much on the understanding of its potential by the community, as on the provision of a quality service by a well qualified staff. Every effort has been made to give a comprehensive indoctrination in the value and importance of low vision aids to persons with subnormal vision, to those segments of the community representing potential sources of referral.

Realizing this could be more effectively accomplished through individual and personal contact than through mass media no publicity for the Clinic was sought through public press, radio or TV although one article did appear in a national magazine after the Clinic was in operation four years. The Vocational Rehabilitation staffs of the Department of Education and the Division of Services for the Blind and the latter's social service staff were given lectures and a visit to the Clinic to see the operation in detail. Similar presentations have been made to the Department of Employment Security, members of Lions Clubs, Association Board members, and staffs of resource classrooms serving visually handicapped students.

Supervisors and students from local hospital ophthalmological staffs are regularly indoctrinated in Clinic procedures as part of their hospital training. Staff members have spoken before church and other community groups.

A seminar has been held in the Clinic for the senior class of the Massachusetts College of Optometry. Brochures describing the Clinic have been widely distributed. A series of slides and a discussion dealing with subnormal vision and the optometric aspects of the Clinic has been prepared for public education purposes. This material is used in conjunction with an over-all description of the Clinic's aims and an explanation of the team-work approach by the social worker, ophthalmologist and optometrist.

An indication of the impact of the project in the community was apparent when, on June 9, 1961 the Rhode Island Optometric

Association presented a certificate of appreciation to the Clinic Director for "outstanding contribution to the visual welfare of the community" as evidenced in the Vision Rehabilitation Clinic.

OBSERVATIONS AND CONCLUSIONS: OPTOMETRIC

Optometric Testing Procedures: The following is a summary of the actual procedures performed in the clinic:

After the ophthalmological report has been received together with the psycho-social report and any other agency report, the history is taken by the optometrist. Each client is asked some specific routine questions and when it is felt warranted further investigation along a particular line of questioning is pursued. The optometrist gets this information first hand and is in a better position to prescribe for this client at a later date.

Keratometry is performed next. This is an objective finding of the corneal measurements. Sometimes it is the only objective finding available to the examiner and, therefore, of extreme importance in subnormal vision work. The visual acuities are then taken with and without corrections at distance and near. Standard and special charts are used as described elsewhere in this report.

An external examination is then performed together with ophthalmoscopy so the examiner may see the extent of damage and determine objectively the possibility of assisting the client.

Retinoscopy is next performed and when it can be taken, it represents the most important single objective test in the examining of the subnormal vision client. The subjective testing procedures are done next and great latitude is afforded here as there are so many tests available to the examiner. There are at least three different techniques that can be utilized to test each of the refractive findings. When these tests are possible, together with the retinoscopic findings, one can be reasonably certain of the accuracy of the total testing procedures.

It is only when all of the above has been completed and found to correlate that the actual testing with subnormal aids begins.

Telescopic testing is done first at distance with each eye separately and then together when possible. Reading caps

are added when the distance findings are completed and the client's near vision is ascertained. Microscopic testing is done next to obtain the best possible acuity. If any of the above are of little or no practical value to the client then auxiliary aids are tried in an attempt to assist the client for some particular task.

The above is a brief description of the procedures that take place on the first visit. It is necessary to check many of these findings and thus the client is returned to the clinic for further testing to verify and modify the results of the first visit. In most cases the client will do better on the second and third visit.

When it is found that the prescription can finally be written, measurements are taken for the lenses and frames so the prescription can be filled exactly. The client is dispensed the device on a subsequent visit after the prescription has been verified. The frame is adjusted for comfort and for optical aligning which is most necessary in the modern bioptic units. It is at this visit that the client is taught the use of the device and written instructions are given to him.

Age and Success: Age does not seem to be of significance in prescribing for a client or in his ability to adapt to a subnormal vision device. This does not merely pertain to the aged but to the young client as well. Care is taken when prescribing to the extremely young client (10 years or under) to be certain that he is not given a unit beyond his comprehension. Beyond age eighty care is also taken to be certain that the unit prescribed does not require more effort than the client can give in adapting to the device. One other age group that should be given special mention is the teenage group. These individuals do not desire to be placed apart or seem different from their fellow students and are therefore willing to accept vision less than the maximum to which they can be corrected in order to have a unit more desirable in cosmetic appearance.

Education and Ability to Adapt: The amount of education the client has had seems to have no bearing on his degree of success in adapting to a subnormal vision aid. Some of the most successful cases had had little or no formal education. Certain of these clients who had not enjoyed reading previously, after having lost the ability to do so, were apparently so moved by this that they now read more extensively than they ever had in their entire life.

Age of Onset of Visual Loss and Acuity: Statistics show that for nearly one-quarter of the total caseload onset was either

congenital or occurred before age ten.

Of the fifty-two clients who have had their visual problem since birth, many are in the sixties or seventies, only six could not be brought down to J₁ print at near. Three of these could be corrected to J₂, the remaining three could be corrected to J₆. This means that forty-nine of the fifty-two cases could have been corrected sufficiently to have been able to read the standard textbooks in school and, as a result, could receive a normal education.

Duration and Adaption: The length of time the patient has had the visual disability does not seem to have any bearing on the fact that the client can be corrected to good acuity; nor does it have any bearing on the client's ability to adapt to a unit.

Rate of Onset and Success: Fifty-six clients are known to have suffered a sudden loss of vision and in only one of these cases was the vision too poor to prescribe for. This individual could be brought down to only J₁₈ print at near. One other case could be corrected to only J₂. The remaining fifty-four cases of sudden loss were each corrected to J₁ and all are wearing the unit successfully. This seems to indicate that with a sudden loss of acuity the client, once he is past the initial shock, apparently responds better than others who suffer a gradual loss of acuity.

Pathology: There seems to be no specific correlation between pathology and degree of success. Cases which are found to be more difficult to assist are those of extensive corneal scarring and pathologies of advanced peripheral retina.

Etiology and Ability to Correct: In one-fifth of the cases the etiology was unknown. Eight of the fifty-one clients of unknown etiology could not be given practical vision. This means that in spite of the unknown etiology, forty-three of the cases could be corrected. No correlation, however, can be found between etiology and ability to correct acuity or success in use of a subnormal vision device.

Visual Acuity and Magnification: With a subnormal vision device of a specified magnification it was found the acuity often jumped out of proportion to the actual magnification. This can be interpreted as meaning the original acuity had diminished because of disuse. When the client began to use his eyes regularly with the subnormal vision device, he then was able to achieve a better acuity. This is in direct contrast to what was believed good advice many years ago when patients were told to save or conserve their eyes by not using them too much.

Hand Held Magnifiers: Each of the two hundred and thirty-one clients were specifically asked the question: "Do you use any type of lens or magnification in order to see something at near?" Many responded: "I have tried hand magnifiers and found them to be of no value." Most of the patients brought the hand magnifiers to the clinic with them as was requested. It was found that the majority of hand magnifiers ranged in power from approximately 4.00 diopters to 11.00 diopters. In most instances this amount of power was not sufficient for the client to be able to read fine print at near. It was also noted a few had magnifying lenses stronger than truly needed to be able to see fine print. It can be seen from the great number of individuals employing aids incorrectly that professional services are necessary in order for the client to be able to achieve his maximum visual acuity with maximum efficiency.

Degree of Correction at Near: With all types of aids that the clients were employing when first seen in the clinic only thirty-seven were able to read a newspaper. After the subnormal vision examination was completed, two hundred and fourteen cases could be given sufficient vision to read newspaper print. In fact, one hundred and eighty-four of the two hundred and fourteen clients could be corrected to print one-third the size of the newspaper; this meant, with some training, these clients could easily achieve fairly accurate newspaper print.

Primary and Secondary Visual Desires: It is interesting to note that one hundred and eighty-one cases desired some assistance at the near point while only thirty-one gave as a primary desire some vision for distance seeing. One hundred and twenty-four of the one hundred and eighty-one cases stated flatly they would like to be able to read. As a secondary visual desire, ninety-seven of the two hundred and thirty-one cases again gave increase in near visual acuity as their desire, while only fifty-five desired some additional help at distance. There are two specific reasons for this. First, many of the clients believe that if they can read they will be able to do almost everything else. Second, most clients do not realize how poor their distance vision actually is. If a client is not able to see small print, he simply is unable to read a newspaper or book. However, no matter how poor a client's central acuity is at distance, if he has good peripheral vision he will be able to move about freely, even crossing streets without fear of being run down. He will be able to walk in strange surroundings without bumping into things and therefore, will be satisfied with his distance acuity. It was also interesting to note that only four cases gave television and movies as a primary desire and only twenty cases gave television and movies as a secondary visual desire.

Success of Near and Distance Units Prescribed: It is noted that twice as many near vision aids were prescribed as distance aids. In 1961 the new bioptic units were developed. Fifty-six of the eighty units prescribed for distance have been prescribed since 1961. Prior to that time, the number of near to distance units prescribed was considerably more out of proportion. One reason why telescopic spectacles became more acceptable was because of improvement in cosmetic appearance. The new bioptic telescopic units also allow mobility. Only twelve bioptic units of the old type were prescribed in almost a two year period. Nearly five times as many were prescribed in the two year period following the development of the new bioptic unit.

Of the one hundred and forty-eight near units, one hundred and twenty-nine of them were of the bifocal type containing both a near prescription and a distance prescription. This is beneficial for the client since he may use the unit without removing it each time he finishes a near-point task. It is found the degree of success of subnormal vision clients is much greater today than it was five years ago. The main reason for this has been the development of the newer, more cosmetically acceptable lenses.

Of the one hundred and eighty-seven clients prescribed for, it is most gratifying and pleasantly surprising to find that only two cases rejected the units dispensed. However, the progress of seventeen others is unknown. Of these, three have been ill and three others have moved out of state, two were referred for further medical assistance and have not returned as yet. Four others have been reappointed.

Visual Acuity and Ability to Read: One hundred and eighty clients were corrected to J₁ and two hundred and eight corrected to J₃ or better. Two hundred and twenty-one clients could achieve J₆ or better. The percentage that was corrected to J₃ or better is so high (92.6%) as to warrant reappraisal of present concepts of teaching low vision students. It is possible that large print books are unnecessary and are actually retarding these children's reading ability. In the first three grades the student learns to read and from the fourth grade on, he reads to learn. Studies have been made on reading speed according to size of print; it has been found the larger the print, the slower the reading. The student in the first grade reads approximately 55 words per minute, in the second, 90, third, 115, and then in the fourth grade jumps to 160. The main reason for this is that in the fourth grade the print gets smaller. After this, there is a gradual increase with approximately 200 words per minute being read by the high school student. The question which needs to be answered is - Can students learn more efficiently

using large print books or using subnormal vision aids with normal size print books? All rehabilitation stresses integration of the individual into the community. Here is an opportunity for the subnormal vision client to be integrated with his sighted peers.

Multiple Units for Efficiency: Also to be considered is not only the degree of success with which a subnormal vision client uses his aid but also the degree of efficiency or versatility that the client has achieved. For instance, can he merely read the newspaper or is he capable of reading the newspaper, typing, writing, filing, working on a machine, seeing a task at arms length, watching television, being able to see street signs, etc. These tasks requiring ability to see at varying distances can only be performed if a client has more than one unit. The truly successful subnormal vision patient will eventually have more than one unit because of the limitations of the depth of focus at the near point. A unit that provides acuity at two inches can hardly be of much value at five or six inches.

Time, Follow-up and Instructions for Success: Since the inception of the clinic one factor that has been kept uppermost is the time element necessary to properly examine and follow-up clients who were prescribed subnormal vision aids. Care must be taken, especially with the type of pathology that fluctuates - such as the diabetic - that a prescription is not written too quickly. The follow-up is so important that it is sincerely believed the degree of success would be extraordinarily smaller were the clinic to discontinue follow-up on the clients. It was found that many clients misinterpreted, misunderstood or simply were not paying attention at the time of dispensing. Apparently the clients are keyed up on the day they are to receive their new aid and what they are told seems to be unheard. A special instruction sheet was, therefore, drawn up and as each client is dispensed a unit, instructions pertaining to that type of unit are given to the client. Even with the oral and written instructions some patients did not use the unit correctly. When the client returned to the clinic or the social worker made a home visit and the error was corrected, usually no further assistance was necessary. At times, however, because of senility, poor memory, or poor comprehension, follow-up is necessary for reinforcement. In order to maintain a high degree of success continued follow-up is, therefore, an absolute necessity.

Most Common Errors: There are three common errors that clients make with subnormal vision devices. The first is commonly referred to as inability to read clearly - drifting; this happens when the client starts to read at the exact focal point

of the prescription but gradually moves the reading material away. Naturally, because of the short depth of focus, the patient will begin to see the print blurred. Therefore, it is important to emphasize to the client the print must be held at the exact reading point. Second, the client often does not hold the reading material flat. This is especially true when a client attempts to read a newspaper. Again, because of the very short depth of focus, a slight "bump" in the paper will mean a difference in focal length of possibly a quarter of an inch. Using a microscope of high power that quarter of an inch means the difference between clearness and blurred vision. The client must be instructed to hold the reading material absolutely flat. This can best be done by using a stiff cardboard behind the reading material. The third most common error is that rather than moving the reading material to the left, the client turns his head to the right to see the end of a line. Again, because of the short depth of focus, turning the head causes a blurring at the end of each line. The client must be instructed to maintain a fixed head position and move the reading material to the left as he reads.

To recap, in the first case of drifting the client will report "everything is clear when I first start to read and then suddenly everything seems to go out of focus." He is moving the reading material out away from him. In the second case, the client reports: "I see everything clear and then it goes blurred and then it clears again." This means the reading material is not being held flat. In the third case, the client says: "When I first begin to read, the beginning of the line is clear but then at the end of the line it becomes blurred." The client is either turning his head or not moving the reading material to the left. One further point should be made. Fortunately lighting does not affect a great percentage of clients, however, it can be a significant factor and it should be taken into consideration to assure success with a subnormal vision device.

Clients are instructed in all of the above and in addition, are told to practice a few minutes each day, several times a day in the beginning and to gradually increase their reading time. This is especially important for clients who have not read for many years. These clients are also instructed to read children's books or clearly printed books in the beginning and then gradually work down to newspaper print.

Each of the above mentioned items that are given as an instruction to the clients at the time of dispensing are checked on the first follow-up visit. When the client is progressing satisfactorily other visual desires are then investigated.

Children: The young subnormal vision client requires special mention. As is noted elsewhere in this report, every school-age client seen could be given some assistance. When the child is first examined special techniques are employed to facilitate and expedite the procedures, such as, the use of colored slides as "attention-getters" at distance. The actual testing time is shortened to avoid having the patient become bored or fatigued. An attempt is made to leave the young subnormal vision client in a good state of mind so he will desire a return "visit" to the Clinic.

In the final prescription care is taken that the unit given is not beyond the youngster's comprehension. Also, a unit is sometimes given in two parts, that is, one section or part of a prescription is given on one visit while the remainder of the prescription is held for one month and given later. For example, in prescribing a telescopic spectacle with a reading cap, the spectacle can be given initially and the cap a month later. At times it may be necessary to prescribe two separate units for a young client, such as, a telescopic unit and a microscopic unit. It seems better to prescribe only one unit at a time with the thought that the second unit will be added if and when the child is prepared for it. It further seems advisable to attempt the near unit first and then to add the distance unit. This is usually true in all cases except high myopia where the reverse may be more practical.

Children need to be followed-up regularly as the refractive findings change with age and the units must be changed periodically. Also, they must be checked to see that they are using the units properly. The importance of these visits must be stressed to the parents. Patience and time are very necessary for this age group, but when provided, success is more assured.

Contributions to the Individual: For the child, the subnormal vision clinic means a more fruitful education, and in many instances a more normal, completely different and more challenging life.

For the employed, it provides the ability to remain so, if not indefinitely then for as long a time as possible.

For the unemployed, it means an opportunity to seek gainful employment despite limited vision on a more nearly equal basis with the sighted.

For the housewife, it gives opportunity to continue to serve her family and be independent in the performance of her duties.

For the senior citizen, the subnormal vision clinic means another chance at independence - an opportunity to use the many hours available for useful, enjoyable activities.

OBSERVATIONS AND CONCLUSIONS: OTHER

The Social Service Unit of the Vision Rehabilitation Clinic has made an important contribution to the adjustment of clients to the situation in which they find themselves. The effectiveness of any service to a client in terms of total need depends to a great extent on the relationship of all disciplines involved. The Clinic case worker, as a member of the Vision Rehabilitation team works closely with the ophthalmologist, the optometrist and the client. She seeks to help the client accept his visual limitation and to utilize any device or resource which could increase his independence and assist him to a more satisfactory life both personally and socially.

In the initial interview a psycho-social study is made for the purpose of obtaining pertinent data which will enable the Vision Rehabilitation Clinic staff to gain understanding of the client and the social and emotional factors having a bearing on the client's problem. Among information gleaned is a description of the family unit, its physical environment, the client's life history including place of birth, age, education, time and length of disability, financial resources and the specific help the client hopes to get through use of a low vision device. Also considered is any personality factor observed which could affect motivation and performance. This interview most desirably takes place in the client's home so that he may be seen in the environment in which he is most frequently active. This enables the worker to better assess the situation in which the client finds himself and the extent to which his visual loss has affected the family group as well as the kind of influence the family asserts on the client.

Equally important in this interview is the explanation of the total procedure of the Clinic to the client. His anxieties can be relieved through emotional support, clarification and interpretation. The client must be assisted to view his visual problem in a realistic manner. He should also be prepared so that should the fitting of a subnormal vision device prove impossible or impractical he will be ready to accept the fact without undue disappointment or emotional impact.

The social worker's role again becomes important at the time a subnormal vision device is dispensed. The worker must be familiar with the nature of the device and the doctor's instructions to the client so that she can help the client in the effective use of the aid. As pointed out

earlier, even though instructions are written and given to the client in addition to careful oral instructions, many times they are misunderstood. This can best be illustrated by citing the case of a client who carefully mounted on cardboard the instructions given her at dispensing, reading these ten minutes each morning and evening. When the social worker went in to check her progress she found the client was under the impression that she was to confine her reading to this sheet and therefore had been denied the pleasure and benefit of reading a variety of printed material. The importance of these follow-up visits cannot be over-emphasized since they are invaluable in preventing frustration by providing early assistance with difficulties being encountered. Of equal importance is the fact that problems beyond the scope of the social worker can be quickly detected and the client immediately reappointed with the optometrist.

The visit to the home is again important in that it gives the client assistance in the environment where he will most frequently use the device. The ideal clinic set-up is often not duplicated in the home and where things such as good lighting are important, the social worker can help the client arrange for these.

It has been found that an important adjunct to the assistance given with the visual problem is the assistance given with other problems many times of an involved or deep-seated nature. Emotional and social problems met with Clinic clients embrace the full gamut of those experienced in other programs and settings where human beings are being served. For this reason it is essential that the worker in the Clinic be professionally trained and qualified. Just as in other areas, there must be a close working relationship between the Clinic case worker and other community resources. The Clinic Social worker has worked particularly closely with the staffs of both vocational rehabilitation agencies and the home-teaching and social service staffs of the Division of Services for the Blind.

Although 231 clients had been seen in the Clinic at the close of the grant period, a total of 294 clients had been seen by the social service workers. Of this number, many of the 23 who have been seen by the present case worker who have not yet come to Clinic, will be seen in the coming weeks. Most of the other 40 clients will not be seen in clinic, either having decided they did not want the service or having no useful residual vision. The latter was the situation with many who were self referrals and were looking for the miracle that would restore vision.

It has been found that casework service is essential to the successful fitting of low vision devices. In those instances where such service was unavailable because of lack of a worker, it was found the work of the optometrist was made more difficult and the adjustment of the client more prolonged and often less successful. In several cases where early adjustment was poor, after continued contact by the social worker, the client was again motivated to return to clinic for further study which resulted in resolving the problem which had hampered adjustment.

Before concluding the narrative report one should consider those factors contributing to the success or failure of the project. On the basis of facts outlined in this report, one cannot do other than concede the Clinic has been a success. When inquiring what ingredients for that success have been, it can be stated with conviction that the most important factor was the staff administering the service. As individuals, each is a leader in his or her field; however, the Clinic has been most fortunate to secure the services of an interested, cooperative, dedicated group which with ability and imagination, approached the task with enquiring minds constantly seeking out more effective procedures and the most advanced subnormal vision devices available.

The invaluable assistance and cooperation of the ophthalmologists in providing the medical attention necessary was essential to the success of the venture. The generous help provided by the staff ophthalmologists who gave freely of their time must be particularly acknowledged.

The Clinic was indeed fortunate in securing as staff optometrist a capable and imaginative young man who brought to his task an unusual combination of professional ability, humanitarianism and desire to find new and better ways to serve clients with subnormal vision. He has devoted many hours in addition to those actually spent in the Clinic seeking new information and devices. Many other optometrists also referred or conferred about clients thus making an important contribution.

The social service staff has the important task of preparing the client for clinic service and assisting with his adjustment. Only a fully trained, well qualified individual is adequate to work in this area and in this day of shortage of such personnel the Clinic is fortunate to have such a staff member.

A second important ingredient to success has been the degree of involvement of the community in the project. It has been pointed out earlier that 39% of referrals were made by ophthalmologists and 25% by the staff of the Division of Services for the Blind; hospital clinics, optometrists, the Department of Education, Division of Vocational Rehabilitation, school departments and families were also convinced enough of the value of the Clinic to be important sources of referral. When one examines the list of sources which paid for devices when clients were unable to do so, one finds the Division of Services for the Blind, the Department of Education, Division of Vocational Rehabilitation, the Department of Public Assistance and several Lions Clubs providing this help. As can be seen from these facts, the Clinic did not operate in isolation and was, therefore, successful.

A third ingredient contributing to success has been the provision of a time-consuming and carefully thought out plan of service. It has been found that no step in the procedure can be by-passed nor can less than the time allotted for the various steps be given without jeopardizing the success of a fitting. In those few instances early in the operation of the Clinic where staff permitted its judgment to be swayed for reasons which seemed important, complications arose which made evident the inadvisability of the decision.

The social worker must adequately prepare the client; the ophthalmological examination must precede the first clinic visit and have been given within a year's time. The initial visit to the Clinic should consume approximately one and one-half hours, the second approximately an hour and as many additional half hour sessions as necessary should be given to assure the accuracy of findings and the understanding of the client. The follow-up visits by the social worker and the rechecks in clinic at the times specified earlier in the report are equally important. It is also important, and more-over only fair to professionals making referrals that they be supplied a report on service provided and the potential performance of the client upon dispensing, as soon after the prescription of a device as possible. This is also an important part of service to the client since these individuals can also be of assistance to the client and to staff as well.

These factors which contributed so largely to the success of the project are not peculiar to any one type of organization or setting and, therefore, it can be concluded that where such a service is located is not an important matter so long as these ingredients are present.

A statement by the American Foundation for the Blind in its survey of the Association's program and services bears out these statements concerning the importance of the Clinic to the community:

"The Visual Rehabilitation Clinic has demonstrated its effectiveness and without question should be continued beyond the federal grant period."

The Association will most certainly continue to provide the service. To within the last few months, the schedule of operating two one-half days a week has been adequate. A backlog has built up however, and some extra time has been provided on a temporary basis. Should this continue to be necessary, Clinic operating time will have to be increased so that no extended delays in servicing a client will take place. Since motivation is such an important factor in successful use of a device, the client must be seen at the point of maximum motivation which is often at point of referral.

APPENDIX

CHART I

SEX DISTRIBUTION OF CLIENTS
SEEN IN VISION REHABILITATION CLINIC

<u>Sex</u>	<u>Number of clients</u>	<u>% of total</u>
Male	126	54.4
Female	105	45.6
TOTAL	231	100.0

CHART II

AGE OF CLIENTS
SEEN IN VISION REHABILITATION CLINIC

<u>Age</u>	<u>Number of clients</u>	<u>% of total</u>
less than 10	9	3.9
10-19	30	13.0
20-29	6	2.6
30-39	22	9.5
40-49	27	11.7
50-59	24	10.4
60-69	43	18.6
70-79	43	18.6
80-89	25	10.8
90 or older	2	.9
TOTAL	231	100.0

CHART III

YEARS OF FORMAL EDUCATION COMPLETED BY
CLIENTS SEEN IN VISION REHABILITATION CLINIC

<u>Years</u>	<u>Number of clients</u>
1	1
2	9
3	3
4	5
5	10
6	28
7	16
8	13
9	16
10	10
11	4
12	52
13	4
14	5
15	1
16	25
17	1
18	4
19	2
none	6
No history	16
TOTAL	231

CHART IV

AGE AT ONSET OF BLINDNESS
OF CLIENTS SEEN IN VISION REHABILITATION CLINIC

<u>Age</u>	<u>Number of clients</u>	<u>% of total</u>
Birth	52	22.5
less than 1-9	9	3.9
10-19	15	6.5
20-29	14	6.0
30-39	8	3.4
40-49	10	4.6
50-59	28	12.1
60-69	35	15.1
70-79	38	16.4
80-89	13	5.6
No history	9	3.9
TOTAL	231	100.0

CHART V

DURATION OF BLINDNESS OF
CLIENTS SEEN IN VISION REHABILITATION CLINIC

<u>Duration</u>	<u>Number of clients</u>	<u>% of total</u>
Less than 6 months	5	2.1
6 months-less than 1 year	1	.5
1-less than 2 years	23	10.0
2-less than 4 years	45	19.5
4-less than 8 years	47	20.4
8-less than 20 years	56	24.1
Over 20 years	45	19.5
No history	9	3.9
 TOTAL	231	100.0

CHART VI

RATE OF ONSET OF BLINDNESS
OF CLIENTS SEEN IN VISION REHABILITATION CLINIC

Rate	Number of clients	% of total
Sudden	56	24.1
1-less than 6 months	1	.5
6 months-less than 1 year	3	1.3
1-less than 2 years	15	6.5
2-less than 5 years	30	13.0
5-less than 10 years	16	6.9
Over 10 years	18	7.8
No history	91	39.4
Unknown	1	.5
TOTAL	231	100.0

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CHART VII

DIAGNOSIS-PRIMARY CAUSE OF VISUAL LOSS
FOR BEST EYE (FITTED OR TESTED)
OF CLIENTS SEEN IN VISION REHABILITATION CLINIC

Diagnosis	Number of clients	% of total
Choroid and retina		
amblyopia	4	
degeneration	81	
hemorrhage with		
macular involvement	4	
diabetic retinitis	19	
uveitis	1	
retrolental fibroplasia	9	
chorio retinitis,	7	
choroiditis	2	
congenital myopic		
degeneration	14	
congenital macular		
dyplasia	2	
retinitis pigmentosa	12	
vascular retinopathy	2	
retinitis proliferens	1	
pigmentary degeneration	1	
Total Choroid and retina	159	68.8
Nerve		
optic atrophy	16	
glaucoma	10	
Total nerve	26	11.3
Cornea		
ptesis bulbi	2	
scarring	4	
corneal dystrophy	2	
leucoma of cornea	2	
congenital micro ophthalm-		
mus with complications	1	
keratoconus	1	
keratitis	3	
Total cornea	16	6.5
Lens		
cataract	12	
aphakia	3	
Total lens	15	6.5
Other		
nystagmus	9	
aniridia	1	
suspected brain damage	1	
brain tumor	1	
congenital malformation	2	
albinism	2	
Total other	16	6.9
TOTAL	231	100.0

CHART VIII

ETIOLOGY
OF CLIENTS SEEN IN VISION REHABILITATION CLINIC

Diagnosis	Number of clients	% of total
Unknown	51	22.1
No history	48	20.7
Congenital	33	14.2
Diabetes	26	11.2
Arterio-sclerosis	17	7.3
Hereditary	14	6.0
Senility	9	3.9
Excessive oxygen in prematurity	9	3.9
Myopia	6	2.6
Hypertension	2	.8
Juvenile amaurotic family idiocy	2	.8
Multiple sclerosis	2	.8
One client each of the following:		.5
Scarlet fever, keratitis, whooping cough, vitamin deficiency, trauma, lues, glaucoma, brain damage, chorioretinitis, cerebral palsy, brain tumor, Eales disease	12	5.2
TOTAL	231	100.0

CHART IXa

DISTANCE VISUAL ACUITY
(WITH BEST CORRECTION BEFORE SUBNORMAL VISION EXAM)
OF CLIENTS SEEN IN VISION REHABILITATION CLINIC

Acuity	Number of clients	% of total
15/20	1	.5
10/20	1	.5
10/25	4	.8
10/32	6	2.6
10/44	20	8.7
10/52	20	8.7
10/68	6	2.6
10/77	11	4.8
10/86	14	6.1
10/97	15	6.5
10/109	16	7.0
10/137	17	7.4
10/175	9	4.0
10/200	14	6.1
10/250	22	9.6
10/300	17	7.4
10/400	8	3.5
10/500	4	1.8
10/600	5	2.2
10/800	5	2.2
* F. C.	1	.5
** L. P.	15	6.5
TOTAL	231	100.0

* F. C. - finger counting

** L. P. - light perception

CHART IXb

NEAR VISUAL ACUITY
(BEFORE SUBNORMAL VISION EXAMINATION
OF CLIENTS SEEN IN VISION REHABILITATION CLINIC

Acuity	Number of clients	% of total
J ₁	19	8.2
J ₂	10	4.3
J ₃	15	6.5
J ₄	20	8.7
J ₅	9	3.8
J ₆	16	6.9
J ₇	1	.4
J ₁₀	2	.9
J ₁₂	6	2.6
J ₁₄	19	8.2
J ₁₆	17	7.4
J ₁₈	24	10.4
J ₁₉	12	5.2
J ₂₀	8	3.5
Less J ₂₀	50	21.7
* L.P.	2	.9
**F.C.	1	.4
TOTAL	231	100.0

* L. P. - light perception
**F. C. - finger counting.

CHART X

YEARS SINCE READING NEWSPAPER
OF CLIENTS SEEN IN VISION REHABILITATION CLINIC

<u>Years</u>	<u>Number of clients</u>	<u>% of total</u>
Not applicable	20	8.6
0-less than 6 months	7	3.3
6 months-less than 1 year	8	3.4
1-less than 2 years	45	19.4
2-less than 4 years	37	16.6
4-less than 6 years	18	7.7
6-less than 8 years	3	1.2
8-less than 10 years	9	3.8
10-less than 15 years	4	1.7
15-less than 20 years	3	1.2
More than 20 years	11	4.7
No history	11	4.7
Can read presently	37	16.0
Never read	18	7.7
TOTAL	231	100.0

CHART XIa

PRIMARY VISUAL DESIRE OF CLIENTS SEEN
IN VISION REHABILITATION CLINIC

Desire	Including	Number of clients	% of total
See at near	read thermometer, handicraft, use hands, see small objects	7	3.0
Read	read at normal distance	124	53.7
School work		13	5.6
Aid in work	to be mechanic, see micrometer	18	7.8
Aid as homemaker	shopping, cooking, help children, read labels	10	4.3
Dial phone		2	.8
Sew		4	1.8
Read music		1	.4
Type		2	.9
Make out own features		2	.9
View at distance	play baseball, see people, see across room, read numbers at distance, fish, see signs, distinguish forms	20	8.7
TV and movies		4	1.8
Travel freely		5	2.2
Drive		3	1.3
Lens to be used constantly		1	.4
See everything		1	.4
To see single		1	.4
Self care		1	.4
None		12	5.2
TOTAL		231	100.0

CHART XIb

SECONDARY VISUAL DESIRE OF CLIENTS SEEN
IN VISION REHABILITATION CLINIC

Desire	Including	Number of clients	% of total
See at near	play cards, handicraft, do own urinalysis	7	3.1
Read	read at normal distance	43	18.6
School work		4	1.7
Aid in work	see things in cafeteria, repair equipment, finish writing book	11	4.8
Aid as homemaker	shopping, helping children, 6 cooking, play with children		2.6
Sew		16	6.9
Type		3	1.3
Write		6	2.6
Play piano		1	.4
Self care		1	.4
View at distance	read signs, see people, hunt	22	9.5
TV		20	8.7
Travel freely	cross streets	9	3.9
Drive		4	1.7
None		78	33.8
TOTAL		231	100.0

CHART XII

NUMBER OF AVOCATIONS
OF CLIENTS SEEN IN VISION REHABILITATION CLINIC

<u>Number of avocations</u>	<u>Number of clients</u>	<u>% of total</u>
None	45	19.5
1	60	26.0
2	8	3.5
Many	107	46.3
Not applicable	3	1.3
<u>No history</u>	<u>8</u>	<u>3.4</u>
TOTAL	231	100.0

CHART XIII

SUBNORMAL VISION AIDS PRESCRIBED*
FOR CLIENTS SEEN IN VISION REHABILITATION CLINIC

<u>Aid prescribed**</u>	<u>Number of clients</u>	<u>% of total</u>
Adisco Magnifier	1	.4
American Optical Microscope	4	1.5
Aperture Device	1	.4
Bausch & Lomb Folding Magnifier	2	.8
Bifocal Spectacles	35	13.3
Clip-on Loupes	4	1.5
Contact Lenses	1	.4
Dewohler TS	2	.8
Feinbloom TS Full Diameter	7	2.7
Feinbloom MS Full Diameter	6	2.3
Feinbloom Bioptic I TS	12	4.5
Feinbloom Bioptic II TS	53	20.1
Feinbloom Trioptic II TMS	2	.8
Hand Magnifiers	4	1.5
Keeler Microscopic Spectacles	90	34.2
Kollmorgen Bioptic	1	.4
Kollmorgen TS Full Diameter	8	3.0
McLeod Hyperocular	1	.4
Ophthalmic Lenses		
Distance Correction	9	3.4
Near	12	4.5
Absorptive Lenses	4	1.5
Penscope	1	.4
TS, Hand	1	.4
Telesight Loupe	1	.4
Univis TS Bioptic	1	.4
 TOTAL	263	100.0

* A total of 263 units were prescribed for 187 clients.

**TS--Telescopic Spectacles

MS--Microscopic Spectacles

TMS--Telescopic Microscopic Spectacles

CHART XIV

NUMBER OF VISUAL AIDS PRESCRIBED
FOR CLIENTS SEEN IN VISION REHABILITATION CLINIC

<u>Status</u>	<u>Number of aids</u>	<u>% of total</u>
Dispensed, known to be wearing aid	144	62.3
Awaiting device on order	6	2.6
Dispensed and unknown	17	7.3
Dispensed and since deceased	10	4.3
Dispensed, insufficient time to evaluate	8	3.5
Rejected after dispensing	2	.9
	187	
Incomplete--case in process	14	6.1
No aid prescribed	30	13.0
	44	
TOTALS	231	100.0

CHART XV

VISUAL AIDS PRESCRIBED FOR VARIOUS DIAGNOSES
FOR CLIENTS SEEN IN VISION REHABILITATION CLINIC

Diagnosis	In process	No aid	T.S.	M.S.	B.S.	Dist. O.L.	Near O.L.	Other
Choroid and retina								
amblyopia		1	1	2				
degeneration	5	9	19	40	8	1	5	4
hemorrhage with			2	1				
macular involvement			2	1				
diabetic retinitis	2	5	4	11	2		1	3
uveitis			1					
retrolental fibroplasia		1	6	2	2			
chorio retinitis,			1					
choroiditis		1	6	5	1	1		2
congenital myopic			3	4	5	2	1	
degeneration								1
congenital macular								
dyplasia				1				
retinitis pigmentosa	2	1	4	4	2			1
vascular retinopathy								
retinitis proliferens				1				
pigmentary degeneration		1						
Nerve								
optic atrophy	1	3	5	9	2	1	2	2
glaucoma		3	4	4	1			
Cornea								
pthesis bulbi								1
scarring		1	1			1		
corneal dystrophy				2				
leucoma of cornea			1	1				
congenital micro ophthalm-								
mus with complications			1	1				1
keratoconus	1		1			1	1	1
keratitis			1			1	1	1
Lens								
cataract	1	1	3	2	2	1	1	
aphakia		1	2	3	3	1	1	
Other								
nystagmus			8	5	2			
aniridia			2					
suspected brain damage								
brain tumor								
congenital malformation								
albinism			2		1			
no pathology known						1		
TOTALS	12	32	77	98	31	7	11	16

Some clients were given two types of T.S. or M.S.

T.S.=Telescopic Spectacle
M.S.=Microscopic Spectacle

B.S.=Bifocal Spectacle
O.L.=Ophthalmic Lens

CHART XVIIa

DISTANCE VISUAL ACUITY OF
CLIENTS SEEN IN VISION REHABILITATION CLINIC

Visual acuity	Best correction before subnormal vision examination		Number of clients who could be or were corrected at distance to	
	# of clients	% of total	# of clients	% of total
15/20	1	.4	2	.8
10/20	1	.4	40	17.3
10/25	4	1.7	12	5.2
10/32	6	2.6	55	24.3
10/44	20	8.6	19	8.2
10/52	20	8.6	28	12.1
10/68	6	2.6	6	2.6
10/77	11	4.8	10	4.3
10/86	14	6.1	1	.4
10/97	15	6.5	11	4.7
10/109	16	6.9	11	4.7
10/137	17	7.4	6	2.6
10/175	9	3.9	3	1.3
10/200	14	6.1	6	2.6
10/250	22	9.5	2	.8
10/300	17	7.4	4	1.7
10/400	8	3.5	1	.4
10/500	4	1.7	0	--
10/600	5	2.2	0	--
10/800	5	2.2	2	.8
*F.C.	1	.4	0	--
**L.P.	15	6.5	12	5.2
TOTALS	231	100.0	231	100.0

*F.C.--Finger counting
**L.P.--Light perception

CHART XVIb

NEAR VISUAL ACUITY
OF CLIENTS SEEN IN VISION REHABILITATION CLINIC

Acuity	Acuity before subnormal vision examination		Acuity after examination-could be or was corrected at near to:	
	# of clients	% of total	# of clients	% of total
J ₁	19	8.2	180	77.9
J ₂	10	4.3	16	6.9
J ₃	15	6.5	12	5.2
J ₄	20	8.6	4	1.8
J ₅	9	3.9	3	1.3
J ₆	16	6.9	6	2.6
J ₇	1	.4	--	--
J ₁₀	2	.9	--	--
J ₁₂	6	2.6	--	--
J ₁₄	19	8.2	--	--
J ₁₆	17	7.4	1	.4
J ₁₈	24	10.4	3	1.3
J ₁₉	12	5.2	1	.4
J ₂₀	8	3.5	--	--
Less J ₂₀	50	21.7	5	2.2
F.C.*	1	.4	--	--
L.P.**	2	.9	--	--
TOTALS	231	100.0	231	100.0

*F.C.--Finger counting

**L.P.--Light perception

CHART XVII

VISUAL ACUITY CHANGE AT DISTANCE*
OF CLIENTS SFEN IN VISION REHABILITATION CLINIC

<u>Number of clients acuity improved</u>	<u>Degree of change</u>
7	clients vision improved one line
4	clients vision improved two lines
1	clients vision improved three lines
3	clients vision improved four lines
2	clients vision improved more than four lines
<hr/>	
TOTAL	17

<u>Number of clients acuity deteriorated**</u>	<u>Degree of change</u>
1	clients vision deteriorated one line
2	clients vision deteriorated three lines
1	clients vision deteriorated more than four lines
<hr/>	
TOTAL	4

* After original dispensing of subnormal vision aids acuity changes occurred in 21 cases. Change took place after client had opportunity to adjust to the unit completely.

** Vision diminished in many other cases, but additional magnification corrected the change to original vision.

CHART XVIII

VISUAL ACUITY CHANGE AT NEAR*
OF CLIENTS SEEN IN VISION REHABILITATION CLINIC

<u>Acuity improved</u>	<u>Number of clients</u>
From J ₂ to J ₁	2
J ₃ to J ₁	2
J ₃ to J ₂	1
J ₄ to J ₂	1
J ₅ to J ₄	1
TOTAL	7

<u>Acuity deteriorated**</u>	<u>Number of clients</u>
From J ₁ to J ₁₉	1
J ₂ to J ₅	1
J ₃ to J ₄	1
TOTAL	3

* After original dispensing of subnormal vision aids acuity changes occurred in 10 cases. Change took place after client had opportunity to adjust to the unit completely.

** Vision diminished in many other cases, but additional magnification corrected the change to original vision.

CHART XIX

NUMBER OF VISUAL AIDS PRESCRIBED
CLIENTS IN VISION REHABILITATION CLINIC

131 Clients were given 1 subnormal vision aid

43 Clients were given 2 subnormal vision aids

13 Clients were given 3 or more subnormal vision aids

187 Clients were given 263 subnormal vision aids*

- * Many clients were given a change in prescription when examined during routine periodic re-examinations. This was in addition to above.

CHART XXa

PROGRESS OF CLIENTS*
SEEN IN VISION REHABILITATION CLINIC
ACCORDING TO LENGTH OF TIME WEARING AID

	1-12 mos.	13-24 mos.	25-36 mos.	37-48 mos.	49-54 mos.	Total clients	% of total
Progress:							
Excellent	18	31	22	28	2	101	43.7
Good	1	4	4	3	0	12	5.1
Fair	7	3	3	2	1	16	6.9
Poor	4	0	3	0	0	7	3.0
Insufficient time						8	3.5
TOTAL KNOWN TO BE WEARING CORRECTION						144	62.2
Incomplete (In process or awaiting device)					20		8.7
Rejected (3 prior to prescribing)					5		2.2
Deceased**					16		6.9
Unknown					17		7.4
Non-Applicable***					29		12.6
TOTAL						87	
TOTAL						231	100.0

* Progress is defined as follows:

Excellent - adjusted with no problems

Good - uses and likes aid for purpose prescribed, some instruction needed after dispensing

Fair - uses aid spasmodically for purpose prescribed, needs continuing social service and clinic follow-up

Poor - objects to aid - needs motivation and instruction; adjustment problematical

IT - insufficient time has elapsed since aid was dispensed to evaluate progress at this time

** See supplemental CHART XXb

*** See supplemental CHART XXc

CHART XXb

PROGRESS OF CLIENTS PRIOR TO DECEASE

<u>Progress</u>	<u># of clients</u>
Cases incomplete	2
Prescribed, not dispensed	1
Not prescribed	3
Prescribed	10
TOTAL	16

PROGRESS AT LAST VISIT
OF DECEASED CLIENTS PRESCRIBED

<u>Progress</u>	<u>Months wearing aid</u>			<u>Total # of clients</u>
	1-12	13-24	25-36	
Excellent	1	3	1	5
Good	2	1		3
Poor		1		1
Insufficient time	1			1
TOTAL				10

CHART XXc

PROGRESS REPORT NON-APPLICABLE

<u>Reason</u>	<u># of clients</u>
Vision too poor to be improved with low vision aid	9
Client could be helped but would not accept limited vision, would not adapt to optical aid, or did not desire to continue	8
Unable to evaluate client	2
No further assistance possible at this time	4
Vision deteriorated but client had been helped for 2 years 1 client had been helped for 11 months 1 client referred to ophthalmologist 1	3
Vision above subnormal, referred to M.D.	1
Moved out of state	2
TOTAL	29

CHART XXIa

CLINIC VISITS*
NUMBER OF VISITS TO CLINIC PRIOR TO DISPENSING
BY CLIENTS OF VISION REHABILITATION CLINIC

Number of visits	Total visits	Number of clients	% of total
1	14	14	6.0
2	50	25	10.8
3	234	78	34.0
4	324	81	35.0
5	125	25	10.8
6	30	5	2.1
7-9 (one each)	24	3	1.3
TOTAL	801	231	100.0

CHART XXIb

NUMBER OF VISITS TO CLINIC AFTER DISPENSING
BY CLIENTS OF VISION REHABILITATION CLINIC

Number of visits	Total visits	Number of clients	% of total
0		34	18.2
1	29	29	15.5
2	60	30	16.1
3	57	19	10.1
4	88	22	11.7
5	90	18	9.6
6	30	5	2.7
7	35	5	2.7
8	56	7	3.8
9	81	9	4.8
10	30	3	1.6
11	33	3	1.6
12	24	2	1.1
26	26	1	0.5
TOTAL	639	187	100.0

* A total of 1,430 visits were made to clinic by 231 clients between August 1, 1959 and November 30, 1963. Clinic operates two one-half days per week.

CHART XXII

TOTAL HOURS IN CLINIC VISITS
BY CLIENTS OF VISION REHABILITATION CLINIC

Number of hours	Total of hours	Number of clients	% of total
1½	22½	15	6.5
2½	45	18	7.8
3	63	21	9.1
3½	91	26	11.3
4	120	30	13.0
4½	121½	27	11.7
5	75	15	6.5
5½	143	26	11.3
6	48	9	3.4
6½	78	12	5.1
7	56	8	3.4
7½	67½	9	3.9
8	40	5	2.1
8½	34	4	1.7
9	36	4	1.7
9½	9½	1	.5
10	10	1	.5
15	15	1	.5
TOTAL	1,075	231	100.0

CHART XXIII

SOURCE OF REFERRAL
OF CLIENTS SEEN IN VISION REHABILITATION CLINIC

Source	Number of clients	% of total
Ophthalmologists (17)*	91	39.4
R. I. Division of Services for the Blind	59	25.5
Self	28	12.1
R. I. Assoc. for the Blind	21	9.1
Hospital Clinics	13	5.6
Optometrists (7)*	11	4.7
Family	4	1.7
Department of Education (DVR)	2	.9
School Department	1	.5
Other	1	.5
TOTAL	231	100.0

* Indicates number of doctors

CHART XXIV

EMPLOYMENT STATUS AT TIME OF REFERRAL
OF CLIENTS OF VISION REHABILITATION CLINIC

<u>Employed as</u>	<u>Number of clients</u>
Apprentice (bakery)	1
At home	13
Attorney	1
Barber	1
Boiler tender	1
Cafeteria worker	1
Chicken farmer	1
Clergyman	2
Clerk	2
Electrical contractor	1
Factory work (assembly)	2
Foot press operator	1
Floorsweeper	1
Guard	1
Homemaker	43
Home teacher	1
Laborer	1
Machinist	1
Maintenance man	1
Mechanic	1
Night manager	1
Nurse	2
Patient (State Hospital)	1
Proof reader	1
Rehabilitation counselor	1
Retired	58
Runs own business	8
Salesman	5
Saleswoman	1
Secretary	1
Semi-retired	2
Sewing machine operator	1
Social worker	2
Student	42
Superintendent of golf course	1
Teacher	1
Technical writer	1
Vending machine operator	3
Unemployed	21
Warehouse worker	1
 TOTAL	231

CHART XXV

SOURCE OF PAYMENT FOR LOW VISION AIDS
FOR CLIENTS OF VISION REHABILITATION CLINIC

Source	Number of clients	% of total
Self or family	134	58.0
No low vision device prescribed	34	14.6
R. I. Division of Services for the Blind	20	8.6
Department of Public Assistance	17	7.3
To be determined	12	5.1
Lions Clubs	10	4.5
Department of Education (VR)	1	.5
Other	3	1.4
TOTAL	231	100.0

CHART XXVI

CLIENTS OF VISION REHABILITATION CLINIC
KNOWN TO R. I. DIVISION OF SERVICES FOR THE BLIND

	<u>Number of clients</u>	<u>% of total</u>
Known	136	59.0
Not known	83	35.9
No history	12	5.1
TOTAL	231	100.0

CHART XXVII

NUMBER OF CLIENTS SEEN PER YEAR-*
IN VISION REHABILITATION CLINIC

<u>Period</u>		<u>Number of clients</u>	<u>% of total</u>
Aug., 1959	to	Dec., 1959	26
Jan., 1960	to	Dec., 1960	58
Jan., 1961	to	Dec., 1961	54
Jan., 1962	to	Dec., 1962	43
Jan., 1963	to	Nov., 1963	50
<hr/>			
TOTAL		231	100.0

* Clinic operates two one-half days per week.

CHART XXVIII

PRESENT CASE STATUS
OF CLIENTS OF VISION REHABILITATION CLINIC

<u>Status</u>	<u>Number of clients</u>	<u>% of total</u>
Return in 1 year	79	
6 mos.	26	
3 mos.	11	
1 mo.	3 (119)	51.5
Cases closed	56	24.2
* Pending	18	7.8
In process	22	9.6
Deceased	16	6.9
TOTAL	231	100.0

* Reasons for pending status include 3 patients ill, 7 failed to keep appointments (now being reappointed), 3 have moved and cannot be located, 5 have other complicating problems.

CHART XXIX

NEW REFERRALS PROCESSED BY SOCIAL WORKERS
IN VISION REHABILITATION CLINIC - BY WORKER AND DATES

Worker	Dates	Number of cases seen in VRC	Cases seen by social worker- did not come to clinic**	Total
L.F.	*May 13, 1959-May 23, 1960	42	15	57
H.B.	June 6, 1960-Aug. 6, 1962	127	21	148
E.H.	Sept. 10, 1962-March 18, 1963	22	4	26
E.C.	March 15, 1963-Nov. 30, 1963	40	23	63
TOTAL		231	63	294

* Grant period began February 1, 1959. Social worker serviced first client May 13, 1959.

** This includes clients presently awaiting work-up and those withdrawn before clinic appointment.

CHART XXX

EXTENT OF CASEWORK SERVICE*
TO CLIENTS SEEN IN VISION REHABILITATION CLINIC

Progress**	No. of clients	Degree of service		
		Intensive	Routine	Limited
Excellent	101	14	52	35
Good	12	2	5	5
Fair	16	1	5	10
Poor	7	0	4	3
Unknown	17	0	7	10
Non-applicable	29	0	26	3
Deceased	16	1	5	10
Rejected	5	0	3	2
Insufficient time	8	0	8	0
Incomplete	20	0	20	0
TOTALS	231	18	135	78

* Service is defined as follows:

Routine--includes a minimum of 1 intake home visit plus home visits half way between each of the 1 month, 3 month, 6 month and 1 year visits to the clinic for optometric recheck. Hence, a total of 5 visits is considered a routine number.

Intensive--visits beyond the routine 5 home visits are made for purpose of assisting the client in his adaption to use of the visual aid.

Limited--number of visits made are fewer than those prescribed as "routine" procedure. Extenuating circumstances such as full time employment or exceptionally good adjustment to the device may have precluded "routine" social service.

** As defined in CHART XXa

CASE HISTORY #1:

Client: RJ a 43 year old male.

Referred by: Division of Services for the Blind, Division of Vocational Rehabilitation

Employment Status: Unemployed, receiving Aid to the Blind

Marital Status: married; one daughter.

Diagnosis: bilateral disciform degeneration of the maculae of unknown etiology.

Client has been having visual difficulties since September 1957. First seen in Clinic July 17, 1961. He is a graduate of Senior High School and Technical School studying jet engines and gas turbine engines. Client was a mechanic prior to onset of visual loss.

History: When first seen in clinic client was able to walk about alone in strange surroundings although he found it difficult to cross streets except where there is little traffic. Client was unable to read street signs, bus signs or house numbers. He has been unable to read newsprint since January 1958. With an illuminating magnifier he was capable of reading fine print, but could do so for only a few seconds and then had to give up. Client expressed a desire to return to work if he could be given sufficient vision. His vision was O.D. 5/250 and O.S. 5/300 with telescopic spectacles, a unit prescribed in 1958. At near, his vision was O.D. less than J₂₀ and O.S. less than J₂₀.

Treatment: On September 8, 1961 client was given a Feinbloom Bioptic Spectacle both O.D. and O.S. with a reading cap. In addition a Keeler Bifocal type microscope was prescribed. With these, visual acuity was improved to: Distance 10/32, near J₁.

At the one month check it was found the client wore the Bioptic unit every day, could see street signs and bus signs and watched TV from 7:30 to 11:00 o'clock each night. He preferred the microscope for reading. One month later he began working as a mechanic and soon realized some of the working distances were blurred. Another reading cap was given so that he had devices giving 2 $\frac{1}{2}$ ", 6" and 13" reading distances.

Six months later he was again checked and stated he liked his aids very much and that he read the newspaper with the microscopes and used the telescopic spectacles comfortably. At this check-up he was accompanied by his employer who was both interested and fascinated by RJ's accomplishments. He stated RJ is able to repair equipment as rapidly as the insurance rate book schedule and his work does not have to be checked.

As of November 30, 1963, two years and two months since the prescriptions were dispensed to the client, he was still wearing both prescriptions and was still employed as a mechanic.

CASE HISTORY #2:

Client: WJR, a 34 year old male.

Referred by: Division of Services for the Blind, Division of Vocational Rehabilitation

Employment Status: General Insurance Agent

Marital Status: married, 1 daughter

Diagnosis: Bilateral heredo-degeneration of the retina - etiology unknown. Also compound hyperopic astigmatism.

History: Client was first seen in the Clinic February 5, 1960. He has experienced visual difficulties for 24 years. He is able to walk about in strange places unaided. He can see better on a dull day than on a bright day. His vision does not fluctuate from day to day. He is unable to see street signs, house numbers or bus signs. He attends movies and watches television at three feet. He is unable to read newsprint or books. Someone must read his policies, rate books, etc. to him. He expressed desire for increased vision for bus signs, street signs, elevator buttons and paper work. Client has many avocations such as ice skating, skiing, carpentry, sailing and singing. Client's best corrected acuity when he came to Clinic was O.D. and O.S. 10/800 at distance and O.D. and O.S. less than J₂₀ at near.

Treatment: On February 23, 1960 a Feinblom 2.2x Full Diameter unit was prescribed for the left eye with reading caps as well as a Keeler Bifocal Microscope for the left eye. These units improved his vision to 10/109 at distance and J₁ at near. Two months later the new Bioptic unit was developed and the client was shown the unit, desired it and it was prescribed. At the three month check the client stated he liked the Bioptic Unit and that it was "ideal" to see signs on busses approaching. He keeps the microscopic unit with him constantly. He uses the full field Telescopes to watch television. The client was particularly thrilled that for the first time he is now able to read stories to his daughter. He is also able to read his own mail and policies and rate books.

One year after dispensing he started to bowl and uses the Bioptic Telescopic spectacles to do so. He has also started to play golf and uses the Telescopes to sight the flag as he approaches. As of November, 1963 he was using all his subnormal vision devices regularly with comfort to do a variety of tasks previously not possible.

CASE HISTORY #3:

Client: CC a 7 year old male student attending regular classes

Referred by: Division of Services for the Blind Social Service Unit

Diagnosis: O.D. - complete retrothalamic fibroplasia with secondary nystagmus and glaucoma.
O.S. - partial retrothalamic fibroplasia.

Etiology - premature baby given excessive oxygen.

History: Client was first seen in clinic August 21, 1959. He is able to get around in strange surroundings independently, but must move slowly. He can cross streets during the day. The client is unable to see street signs, house numbers of bus signs. He watches TV from a distance of a few inches. He reads headlines and newsprint at a few inches. Client's best corrected acuity when he came to Clinic was O.D. light perception and O.S. 10/109 at distance and at near O.S. J₃ at 3 inches.

Treatment: On September 9, 1959 a 2.2x full-field telescope was prescribed O.S. The client was given this unit to use both at school and at home. With it he is better able to see the blackboard and TV. Since the child is rather young, although fairly intelligent, no near Rx was given because his near vision is adequate to do what he has to do at this age and also so that he would not become confused with the two devices.

Client was checked on October 16, 1959. He was getting along fairly well. He stated that when he first put on the telescopes the whole class laughed but now they pay no attention. The client was able to read 10/44 at distance through the telescopic spectacles. He was given a reading cap to practice at home and on October 30, 1959 stated he was doing fine with the cap. He was again checked in December, 1959 and was getting along very well. He received second honors in school and would have received first except for two 85's.

In October, 1961 the client was prescribed a Bioptic Unit. Subsequent check-up revealed he used the glasses all day, every day. He can see the front board with the telescopic spectacles but not the side board. He watches TV at a distance of 10 feet. Client is able to see everything he desires both at near and distance. When rechecked in October, 1962 he was able to read the 10/32 line, the best acuity he has ever achieved.

As of November, 1963 the client was still experiencing the same success (4 years and two months after original dispensing). Client will continue to be rechecked. Next year his textbook print will be smaller and the client will begin to rely more on the reading cap. At a later time when the print will become even smaller he will undoubtedly be fitted with a microscopic spectacle.

FORMS IN USE DESCRIBED

Form # Description and purpose

13 R.I.A.B. VISION REHABILITATION CLINIC - What it is, who it serves, how it operates
A brochure which is distributed throughout the community to agencies, individuals and groups for the purpose of selective dissemination of accurate information concerning the Vision Rehabilitation Clinic - its aims, purpose, ideals and potential. It is designed to gain support of those agencies and individuals whose affirmation of faith in the project will result in the most wide-spread and meaningful use of the facilities of the Clinic.

2 A referral form - submitted to the Vision Rehabilitation Clinic by persons or agencies making referrals, or filled out by the R.I.A.B. staff member to whom a referral is made to Vision Rehabilitation Clinic. Form is submitted to the social service department for the intake interview.

4 Intake data sheet - filled out by the social service intake worker at the time of the first interview.

5 Social Service data sheet - filled out to record useful background data.

6 Financial data sheet - filled out by social service worker in cases where financial assistance is requested to pay for optical aids. It is completed after optometric examination has determined aid that will be most effective for client and approximate cost of same.

7 Information release form - signed by client prior to request for physical or ophthalmological reports are made.

1 Ophthalmological report form - Filled out by client's ophthalmologist or in cases where clients have no ophthalmologist the form is completed by one of the Vision Rehabilitation Clinic consulting ophthalmologists after a complete examination has been given.

8 Appointment slip - sent to client prior to first visit at clinic and each subsequent clinic visit.

12 Optometric Report Form - used by staff optometrist in the Clinic screening of clients.

10 Progress report - completed after client's first clinic visit and sent to agency or individual from whom referral was received.

- 9 Referral Sheet - used to refer Vision Rehabilitation Clinic clients to other agencies or individuals providing services that would be meaningful to client. Done with client's consent.
- 3 File-card summary - a brief summary on a file card filled out as case progresses and information is available.
- 15 Summary sheet - social service summary of pertinent socio-statistical data and post-prescription progress data. Compiled at time Rx is given and brought to date upon each subsequent home or clinic visit.
- 14 Case summary - a report to the referral agency or individual completed after the visual aid is dispensed.
- 16 Complete summary - includes social, optometric and ophthalmological data. Recorded in triplicate. One copy sent (as requested) to U.S. Dept. HEW; second copies compiled in a folder for use in compiling statistical reports re service to Vision Rehabilitation service to clients; third copy is filed with other reports and data in the client's folder.
- 17 Clearance form - signed by clients when giving permission for use of photographs of client for use in public education materials.
- 18 Instruction sheet - given client to whom telescopic spectacles are dispensed.
- 19 Instruction sheet - given client to whom microscopic spectacles are dispensed.
- 20 Form used in summarizing case history and service when reporting to referring agencies and physicians.
- 21 Outline of lecture on subnormal vision which is presented to audience to follow during lecture.

EQUIPMENT

Office:

- 1 desk
- 1 desk chair
- 1 side arm chair
- 1 straight chair
- 1 two-draw file cabinet
- 2 drop-leaf tables 14" x 18"
- 1 coat stand
- 1 metal floor stand lamp
- 1 card file 5 $\frac{1}{2}$ "x4"x8 $\frac{1}{2}$ "
- two in-out correspondence trays
- 1 glass front display cabinet
- 1 waste paper basket
- 1 blackboard

Ophthalmic:

- AO Ophthalmic chair
- AO Lensometer
- Reliance stool
- Reliance adjustable instrument table - Model 1225-K
- B&L Infrared Heater
- B&L Cabinet
- B&L Orthogon Corrected Trial Case Test Set
- B&L Projector, 35 mm Balomatic projector with remote control
- B&L Keratometer
- B&L Illuminated Chart with portable stand on casters
- Student Ophthalmic Trial Set, uncorrected
- Placido Disc
- Apex Lens Measure
- Univis Segment Measure

Laboratory Tools:

- Ophthalmic hammer
- Ophthalmic regular screwdriver
- Ophthalmic retractable screwdriver
- Ophthalmic lock nut ejector wrench
- Round nose plier
- Rimless strap plier
- Pad gripping plier
- Chappel cutting plier
- End piece plier
- Anvil with 3 attachments
- Ophthalmic pillar file
- Rattail file
- Oil can
- Set of Hilco screws, shields, and hinges
- Broach or tap holder
- Ivoryette rule

SUBNORMAL VISION LENSES:

Keeler LVA 7D-1 Spectacle Dispensing Set
Keeler Verification Set (Bifocal) LVA 2A-1
Keeler Bifocal Magnifying Spectacle Dispensing Set LVA 6-1
Kollmorgen AX 521 Trial Set of 1.7x and 2.2x Units
AO Aspheric Microscopic Lenses 2x, 4x, 6x, 8x, 10x, 12x
AO Normal-sight Device (two)
Univis 1.5x and 2.0x Telescopic Set with +4, +6, +8, +10 Caps
McLeod Hyperocular Aspheric Microscopic Lenses 4x, 6x, 8x
Feinbloom Full Diameter 1.3x Telescopic Lens
Feinbloom Full Diameter 1.7x Telescopic Lens
Feinbloom Bioptic I 2.2x
Feinbloom Bioptic II 2.2x
Feinbloom Bioptic 3x
Feinbloom Trioptic I 2.2x - 4xms
Feinbloom Trioptic II 2.2x - 4xms
Albert Aloe Distance Telescopic Unit
Albert Aloe Reading Unit
Telesight Clip-on Unit
Suron Continental Bifocal Addition Set

HAND HELD AND CLIP-ON TYPE MAGNIFIERS:

Flaw Finder
Penscope
Magni-focuser #10
Telescope-Microscope 8x by 60x
10x Triped
Folding Pocket Magnifiers 3/3/5/6
Folding Pocket Magnifier 4/5/8
Folding Pocket Magnifier 5/7/10
Folding Pocket Magnifier 5/7/10/20
Adisco Magnifier - Battery
Adisco Magnifier - Combination
Plasta Cataract Reader with Stand
Plasta Cataract Reader with Handle
Monocular 10x20
Japanese Sports Glasses
DeWohler Sports Glasses
33MM Adapter Ring
30 MM Adapter Ring
24MM Adapter Ring
#1 Close-up Lens
#2 Close-up Lens
#3 Close-up Lens
#6 Close-up Lens
#10 Close-up Lens
#15 Close-up Lens
Prominar Monocular
B&L Loop 3x Cat. #814117

**R. I. ASSOCIATION FOR THE BLIND
VISION REHABILITATION CLINIC**

NAME OF PATIENT Date of birth

ADDRESS City

Date of examination

VISUAL ACUITY

Distant Vision (rated on basis of Snellen Types)

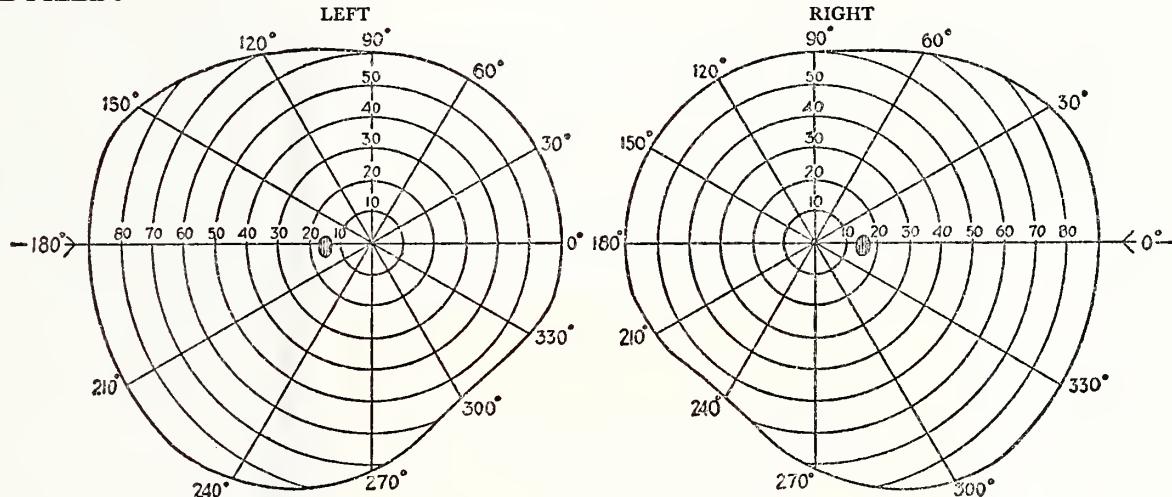
Without correction	{ Right.....	Present	{ Right.....	With new prescription	{ Right.....
	Left.....	correction	Left.....		Left.....

(If necessary state vision in terms of light perception, light projection, hand movements, or ability to count fingers.)

Near Vision (rated on basis of Jaeger Types)

Without correction { Right..... Present { Right..... With new prescription { Right.....
 correction Left..... correction Left..... prescription Left.....

VISUAL FIELDS



Please state size of test object. Central scotomata may also be plotted above.

DIAGNOSIS Right..... Primary Secondary

Left..... Right.....

ETIOLOGY	Primary	Secondary	Statistics
Right.....	of blindness depend on these data. Please fill in.
Left.....	(If traumatic indicate nature of circumstances)

PROGNOSIS (A favorable finding is one of circumstances) Will medical or surgical treatment improve condition?

What treatment is recommended?

What treatment is recommended:

Is the condition stable?

Re-examination in.....months?

Schiötz Tension — Right..... Left.....

Are there restrictions as regards lifting, straining, stooping, bending?YesNo

..M.D.

SUBNORMAL VISION LENSES:

Keeler LVA 7D-1 Spectacle Dispensing Set
Keeler Verification Set (Bifocal) LVA 2A-1
Keeler Bifocal Magnifying Spectacle Dispensing Set LVA 6-1
Kollmorgen AX 521 Trial Set of 1.7x and 2.2x Units
AO Aspheric Microscopic Lenses 2x, 4x, 6x, 8x, 10x, 12x
AO Normal-sight Device (two)
Univis 1.5x and 2.0x Telescopic Set with +4, +6, +8, +10 Caps
McLeod Hyperocular Aspheric Microscopic Lenses 4x, 6x, 8x
Feinbloom Full Diameter 1.3x Telescopic Lens
Feinbloom Full Diameter 1.7x Telescopic Lens
Feinbloom Bioptic I 2.2x
Feinbloom Bioptic II 2.2x
Feinbloom Bioptic 3x
Feinbloom Trioptic I 2.2x - 4xms
Feinbloom Trioptic II 2.2x - 4xms
Albert Aloe Distance Telescopic Unit
Albert Aloe Reading Unit
Telesight Clip-on Unit
Suron Continental Bifocal Addition Set

HAND HELD AND CLIP-ON TYPE MAGNIFIERS:

Flaw Finder
Penscope
Magni-focuser #10
Telescope-Microscope 8x by 60x
10x Triped
Folding Pocket Magnifiers 3/3/5/6
Folding Pocket Magnifier 4/5/8
Folding Pocket Magnifier 5/7/10
Folding Pocket Magnifier 5/7/10/20
Adisco Magnifier - Battery
Adisco Magnifier - Combination
Plasta Cataract Reader with Stand
Plasta Cataract Reader with Handle
Monocular 10x20
Japanese Sports Glasses
DeWohler Sports Glasses
33MM Adapter Ring
30 MM Adapter Ring
24MM Adapter Ring
#1 Close-up Lens
#2 Close-up Lens
#3 Close-up Lens
#6 Close-up Lens
#10 Close-up Lens
#15 Close-up Lens
Prominar Monocular
B&L Loop 3x Cat. #814117

c.2
HV5650 Worden, Helen W. & Frank
W891 W. DiChiara.
VISION REHABILITATION
CLINIC: FINAL REPORT.

Date Due

[1964]

HV5650 Worden, Helen W. & Frank^{c.2}
W891 W. DiChiara.
VISION REHABILITATION CLINIC:
FINAL REPORT.

[1964]

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